



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,797	12/13/2004	Michel Gielis	P/4309-83	8972
20694 7590 06/09/2009 WOLFF & SAMSON, P.C. ONE BOLAND DRIVE WEST ORANGE, NJ 07052				
EXAMINER				
TANG, KARIN C				
ART UNIT		PAPER NUMBER		
2451				
MAIL DATE		DELIVERY MODE		
06/09/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/517,797

Applicant(s)

GIELIS, MICHEL

Examiner

KAREN C. TANG

Art Unit

2451

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

- This action is responsive to the amendment and remarks file on 3/02/09.
- Claims 13-33 are presented for further examination.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 3/2/09 have been fully considered but they are not persuasive.

Rejection 35 U.S.C 103

Applicant argues that the cited art of records Crenella in view of Adkins, did not expressly disclosing “..each peripheral device adopting at each instant an instantaneous status belonging to a plurality of possible status....the controller being operative to periodically scan the peripheral devices to read their instantaneous statuses...”

Examiner disagrees.

Crenella in view of Adkins discloses the alleged missing limitation. Specifically Adkins, disclosing that a system that comprising a controller (rule base engine) operatively to periodically scan the peripheral devices to read their instantaneous status (the controller utilizing its timing threads (i.e., timing processes), refer to par 0025, to periodically poll each devices e.g., printers, drivers, optical disk, to collect information, refer to par 0062).

Applicant argues that the combination with Adkins and Crenella would not provide a faster response time.

Examiner disagrees.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Adkind's system is able to improve a faster response time in Crenella because Adkind's system suggests that there are problem to relies on peripheral devices to submit the status information (e.g., update the controller the change of status information) due to the devices are power up only during their actual use (see Adkind's par 0011), so any issues occur in peripheral devices would not be discovered until at a later time.

Adkind further suggests utilizing the system in the wireless environment (e.g., scanning the status of the laptop, which is a wireless device, see Fig 1b), therefore, it would have been obvious for one of ordinary skill in the art to combine Crenella in view of Adkind.

Applicant further argues that the motivation to combine Crenella, Adkins in further view of Mabuchi is based on hindsight reasoning.

Examiner disagrees.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant argues that it is not obvious to combine Crenella, Adkins, Mabuchi, Face and Myer.

Examiner disagrees.

In response to applicant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

Crenella, Adkins, Mabuchi, Face and Myer all disclosing a system utilizing in the wireless environment furthermore, one of ordinary skill in the art would have been motivated to make the modification to combine Crenella, Adkins, Mabuchi, Face and Myer since using coil/inductance loop to induce electromagnetic energy/power are reliable and durable and usage of coil for inducing electromagnetic energy in the wireless network are well know in the art.

Thus, the arguments presented by applicant are not persuasive, the ground of rejection is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crenella et al. Crenella (US 6601679 B2) in view of Adkins et al hereinafter Adkins (US 2003/0191730) and in further view of Mabuchi et al hereinafter Mabuchi (US 2002/0167393).

1. Regarding claim 13, Crenella teaches a system for remote status readings, comprising:
 - a communication network (communication network, refer to column 2, lines 20-23);
 - a central controller linked to the communication network (controller, is linked to a communication network, refer to column 6, lines 66-67-column 7, lines 1-4, lines 20-24); and a plurality of peripheral devices linked to the controller through the communication network (hall fixtures are connected to the controller via wireless transceiver, refer to column 2, lines 8-11 and 42-51), the communication network being operatively provided so as to link the peripheral devices to the controller by radio frequency means (that the controller and the devices communication by using RF, radio frequency, refer to column 2, lines 28-29);

Crenella did not explicitly indicating “each peripheral device adopting at each instant an instantaneous status belonging to a plurality of possible statuses, the controller being operative to periodically scan the peripheral devices to read their instantaneous statuses”

Adkins, in analogous art, indicating “each peripheral device adopting at each instant an instantaneous status belonging to a plurality of possible statuses, the controller being operative to periodically scan the peripheral devices to read their instantaneous statuses (refer to 0025)”;

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Crenella and Adkins because Adkins’ teaching of “each peripheral device

adopting at each instant an instantaneous status belonging to a plurality of possible statuses, the controller being operative to periodically scan the peripheral devices to read their instantaneous statuses” would improve efficiency of Crenella’s system by provide faster respond time due to the periodic monitoring function.

Crenella and Adkins did not explicitly indicating “the peripheral devices being supplied with electrical energy via a radio frequency through the intermediary of the communication network”

Mabuchi, in analogous art, indicating “the peripheral devices being supplied with electrical energy via a radio frequency through the intermediary of the communication network (refer to 0255).”

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Crenella, Adkins and Mabuchi because Mabuchi’s teaching of “the peripheral devices being supplied with electrical energy via a radio frequency” would improve the efficiency of Crenella and Adkins' systems by eliminate the need to have an actual battery within a device so the status of battery will not need to be considered.

2. Regarding claim 22, Crenella, Adkins, and Mabuchi teach the system for remote status readings according to claim 13, Crenella further teaches “wherein each peripheral device forms a command terminal for management of remote commands (column 2, lines 48-51 teach that the device function as a command terminal where it transmitted a request to the controller regarding a call service.)”.

Claims 14-21 and 23-27, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crenella et al. Crenella (US 6601679 B2) in view of Adkins et al hereinafter Adkins (US 2003/0191730) in further view of Mabuchi et al hereinafter Mabuchi (US 2002/0167393) , Face et al hereinafter Face (US 2004/0174073) and Myer (US 5,850,416).

3. Regarding claim 14, Crenella, Adkins, and Mabuchi teach the limitation of claim 13 for the reasons above. Crenella further teaches

the wireless communication network the controller utilizes a transceiver for sending and receiving of electromagnetic signals (refer to column 2, lines 45-50).

Crenella, Adkins, and Mabuchi did not explicitly disclosing “the transceiver comprises a circuit and plurality of induction loops and that the induction loops are used for powering the peripheral devices.”

Face disclosing “a transmitting and receiving system where it consist a series circuit and plurality of electromagnetic induction loops (Fig 8, indicating that the inductor is served as an loop antenna, and has loop of copper wires, refer to 0087).”

It would have been obvious to one of ordinary skill in the art, having the teachings of Crenella, Adkins, Mabuchi and Face before them at the time the invention was made to modify the controller systems of Crenella, Adkins, and Mabuchi to include the transceiver system with circuit and inductance loop as taught by Face.

One of ordinary skill in the art would have been motivated to make this modification since using coil/inductance loop to induce electromagnetic energy/power are reliable and durable and usage of coil for inducing electromagnetic energy are well know in the art.

Crenella, Adkins, Mabuchi and Face did not explicitly disclosing “the induction loops are used for powering the peripheral devices.”

Myer disclosing “the induction loops are used for powering peripheral devices (abstract and column 3 lines 30-45, “transceiver system in which first electromagnetic waves at 20KHz are transmitted from a single loop primary coil ... to a plurality of device ... having respective multi-turn secondary coils couple by an induction coupling to such primary coil to receive such wave which provide both operating power and signals for each devices”).“

It would have been obvious to one of ordinary skill in the art, having the teachings of Crenella, Adkins, Mabuchi, Face and Myer before them at the time the invention was made to modify the controller systems of Crenella, Adkins, Mabuchi and Face to use the induction loop to provide power to the devices as taught by Myer.

One of ordinary skill in the art would have been motivated to make this modification since using coil/inductance loop to induce electromagnetic energy/power are reliable and durable and usage of coil for inducing electromagnetic energy are well known in the art.

4. Regarding claim 15, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 14, as described above.

Crenella further teaches that each peripheral device has its own identification code (the controller receives status from a device and response to the device with the device address, refer to column 2, lines 49-57 and column 4, lines 39-40), the controller having a configuration memory in which are stored correlatively, for each peripheral device, the identification code of the peripheral device and a localization parameter identifying the location of the peripheral device in the

network (the controller are implemented in a processor, it would be inherent for the processor to have a memory that stores the data it receives including the identification code/address of the devices , refer to column 5, line 67), the controller being operative to read, for each peripheral device, the instantaneous status and identification code of the peripheral device, with a result that each instantaneous status read is correlated, by the controller, to a location in the network (An identification code would be associated with the device for the controller to be able to determine which device it received the device status and which device to sent the responds to.).

5. Regarding claim 16, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 15, as described above.

Crenella further teaches that the peripheral device includes a transmitter-receiver circuit (system must have a transmitter/receiver in order to send and receive information, and the receiver/transmitter must be a hardware, therefore, the hardware must've been composed of circuits.) and at least one status encoder adopting an instantaneous status constituting or participating in building up the instantaneous status of the peripheral device the status encoder being linked to the transmitter-receiver circuit to allow the peripheral device to transmit the instantaneous status of the encoder to the controller (device status message is encoded and transmitted to the controller by the transceiver , refer to column 5, lines 40-42 and 56-60).

6. Regarding claim 17, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 16, as described above.

Crenella further teach that each peripheral device includes an electronic tag having a memory containing the identification code attributed to the peripheral device, a local antenna (teaches antenna linked to the transceiver, refer to figure 6, elements 116 and 118) coupled to an communication network to receive the electrical energy, and the transmitter-receiver circuit (system must have a transmitter/receiver in order to send and receive information, and the receiver/transmitter must be a hardware, therefore, the hardware must've been composed of circuits.), the transmitter-receiver circuit being linked to the local antenna so as to be able at least to receive from the controller a transmission order and to be able to transmit to the controller, apart from the instantaneous status of the encoder, the identification code of the tag (the controller are aware of which device the status message are received from which implies that the address/ID were incorporated in the message, refer to column 4, lines 36-40).

Crenella did not explicitly disclosing "induction loop"
Face disclosing "a transmitting and receiving system where it consist a series circuit and plurality of electromagnetic induction loops (see figure 1, element 14 and 14(a) - teach the inductance loop and page 1, lines 61-75 teach a circuit and inductance loop in the transmitting and receiving system)."

It would have been obvious to one of ordinary skill in the art, having the teachings of Crenella, Adkins, Mabuchi and Face before them at the time the invention was made to modify the controller systems of Crenella, Adkins, and Mabuchi to include the transceiver system with circuit and inductance loop as taught by Face.

7. Regarding claim 18, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 16, as described above.

Crenella further teaches that each peripheral device includes, as the status encoder, at least one appropriate element (column 4, line 14 teaches a call button).

8. Regarding claim 19, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 18, as described above.

Crenella further teaches that the appropriate element is an electric contact (column 4, line 14 teaches a call button).

9. Regarding claim 20, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 16, as described above.

Crenella further teaches that each peripheral device includes, as the status encoder, at least one sensor sensitive to influence of a physical parameter to which the peripheral device is subjected (column 4, line 14 teaches a call button).

10. Regarding claim 21, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 16, as described above.

Crenella further teaches that each peripheral device furthermore includes a display element (column 3, lines 52-55 teach crystal display or lanterns.)

11. Regarding claim 23, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 16, as described above.

Crenella further teaches that each peripheral device forms a call terminal for management of remote calls (column 4, line 14 teaches a call button).

12. Regarding claim 24, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 23, as described above.

Crenella further teach that each peripheral device is installed at a specific location and forms a call terminal for a means of transport (column 4, lines 10-16 teach that the call buttons are located on each floor of a building and are being used within a transportation system.).

13. Regarding claim 25, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 24, as described above.

Crenella further teaches that each peripheral device is installed on a respective floor of a building and forms a call terminal for an elevator (column 3, lines 19-20 and column 4, lines 10-16 teach that the call buttons are located on each floor of a building and are being used within a elevator transportation system).

14. Regarding claim 26, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 24, as described above.

Crenella further teaches that the status encoder of each peripheral device includes a plurality of appropriate elements each of which identifies an assigned destination for the means of transport

from a departure position represented by the specific location (column 4, lines 59-64 teach the elevator car operating panel, it further teach that one of the element (button F1) represents the destination of lobby or first floor).

15. Regarding claim 27, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 14, as described above.

Crenella, Adkins, and Mabuchi did not explicitly disclosing "the transceiver of each peripheral device includes local antenna coupled to an inductor loop to receive the electronic energy transmitted by induction loop"

Face disclosing "a transmitting and receiving system where it consist a series circuit and plurality of electromagnetic induction loops (Fig 8, indicating that the inductor is served as an loop antenna, and has loop of copper wires, refer to 0087)."

It would have been obvious to one of ordinary skill in the art, having the teachings of Crenella, Adkins, Mabuchi and Face before them at the time the invention was made to modify the controller systems of Crenella, Adkins, and Mabuchi to include the transceiver system with circuit and inductance loop as taught by Face.

One of ordinary skill in the art would have been motivated to make this modification since using coil/inductance loop to induce electromagnetic energy/power are reliable and durable and usage of coil for inducing electromagnetic energy are well know in the art.

16. Regarding claim 31, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 14, as described above.

Crenella, Adkins, Mabuchi, and Face did not explicitly disclosing "wherein an electric power signal circulating in the series circuit has a frequency lower than 500 kHz".

Myer, in analogous art, disclosing "wherein an electric power signal circulating in the series circuit has a frequency lower than 500 kHz (abstract and column 3 lines 30-45, "transceiver system in which first electromagnetic waves at 20KHz are transmitted form a single loop primary coil ... to a plurality of device ... having respective multi-turn secondary coils couple by an induction coupling to such primary coil to receive such wave which provide both operating power and signals for each devices")"

It would have been obvious to one of ordinary skill in the art, having the teachings of Crenella, Adkins, Mabuchi, Face and Myer before them at the time the invention was made to modify the controller systems of Crenella, Adkins, Mabuchi and Face to use the induction loop to provide power to the devices as taught by Myer.

One of ordinary skill in the art would have been motivated to make this modification since using coil/inductance loop to induce electromagnetic energy/power are reliable and durable and usage of coil for inducing electromagnetic energy are well know in the art.

Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crenella et al. Crenella (US 6601679 B2) in view of Adkins et al hereinafter Adkins (US 2003/0191730) in further view of Mabuchi et al hereinafter Mabuchi (US 2002/0167393) , Face et al hereinafter Face (US 2004/0174073), Myer (US 5,850,416) and Moslehi (US 6209480).

17. Regarding claim 28, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 27, as described above.

Crenella, Adkins, Mabuchi, Face and Myer did not explicitly disclosing “the induction loop and the antenna are separately by the support.”

Moslehi, in analogous art, disclosing “the induction loop and the antenna are separately by the support (refer to Col 28, Lines 29-40)”

It would have been obvious of ordinary skill in the art at the time of the invention was made to combine the teaching of Crenella, Adkins, Mabuchi, Face, Myer and Moslehi because by separating the inductor loop with antenna by a support such as dielectric material in order to prevent overheating the system.

18. Regarding claim 29, Crenella, Adkins, Mabuchi, Face, Myer and Moslehi teach the system according to claim 28, as described above.

Crenella, Adkins, Mabuchi, Face and Myer did not explicitly disclosing “the support is formed of a dielectric material.”

Moslehi, in analogous art, disclosing “the support is formed of a dielectric material” (refer to Col 28, Lines 29-40)”

It would have been obvious of ordinary skill in the art at the time of the invention was made to combine the teaching of Crenella, Adkins, Mabuchi, Face, Myer and Moslehi because by separating the inductor loop with antenna by a support such as dielectric material in order to prevent overheating the system.

19. Regarding claim 30, Crenella, Adkins, Mabuchi, Face, Myer and Moslehi teach the system according to claim 29, as described above.

Crenella, Adkins, Mabuchi, Face and Myer did not explicitly disclose “the support is formed as a partition.”

Moslehi, in analogous art, disclosing “the support is formed as a partition (refer to Col 28, Lines 29-40 and Fig 26).”

It would have been obvious of ordinary skill in the art at the time of the invention was made to combine the teaching of Crenella, Adkins, Mabuchi, Face, Myer and Moslehi because by separating the inductor loop with antenna by a support such as dielectric material in order to prevent overheating the system.

Claims 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crenella et al. Crenella (US 6601679 B2) in view of Adkins et al hereinafter Adkins (US 2003/0191730) in further view of Mabuchi et al hereinafter Mabuchi (US 2002/0167393) , Face et al hereinafter Face (US 2004/0174073) , Myer (US 5,850,416) and Ghosh et al hereinafter Ghosh (US 2002/0024460)

20. Regarding claim 32, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 31, as described above.

Crenella, Adkins, Mabuchi, Face and Myer did not explicitly disclosing “wherein the electric power signal in the series circuit is modulated at 125 kHz”

Ghosh, in analogous art, disclosing “wherein the electric power signal in the series circuit is modulated at 125 kHz (refer to 0030)”

It would have been obvious of ordinary skill in the art at the time of the invention was made to combine the teaching of Crenella, Adkins, Mabuchi, Face and Myer with Ghosh. because Ghosh’s teaching of “wherein the electric power signal in the series circuit is modulated at 125 kHz” would improve the reliability of their systems by allowing the frequency to oscillates without endanger the stability of the antenna’s tolerant level.

21. Regarding claim 33, Crenella, Adkins, Mabuchi, Face and Myer teach the system according to claim 14, as described above.

Crenella, Adkins, Mabuchi, Face and Myer did not explicitly disclosing “wherein the electric power signal in the series circuit is modulated between 500kHz and 125 kHz”

Ghosh, in analogous art, disclosing “wherein the electric power signal in the series circuit is modulated between 500kHz and 125 kHz (refer to 0030)”

It would have been obvious of ordinary skill in the art at the time of the invention was made to combine the teaching of Crenella, Adkins, Mabuchi, Face, and Myer with Ghosh. because Ghosh’s teaching of “wherein the electric power signal in the series circuit is modulated at 125 kHz” would improve the reliability of their systems by allowing the frequency to oscillates without endanger the stability of the antenna’s tolerant level.

Conclusion

Examiner's Notes: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-Thr 8 - 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/K. C. T./
Examiner, Art Unit 2451

/Larry D Donaghue/
Primary Examiner, Art Unit 2454